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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/019,289 | 01/04/2002 | Richard Kergen | P67515US0 | 1648 |

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EXAMINER

MACARTHUR, VICTOR L

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3679

DATE MAILED: 07/09/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/019,289

Applicant(s)

KERGEN, RICHARD

Examiner

Victor MacArthur

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

For the reasons mentioned above a great deal of confusion and uncertainty exists as to the proper interpretation of the claim limitations requiring considerable speculation about the meaning of terms employed in the claims and assumptions as to the scope of the claims. For example: it is unclear what element the pronoun "it" (claims 9, 12, 13) refers to; the phraseology "the outermost metal" (claim 11) lacks proper antecedent basis; etc.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification is not enabling for a cross section, which is both open (claim 9) and closed (claim 13).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4-7, 9-11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 4055133 to Wessely.

1 and 9. Wessely discloses (fig.8) a process for assembling at least two simple sheet metal parts (2, 4) in order to create a structural component of open cross section which is **preferably** (but not necessarily) U-shaped, **or** (not and) of closed cross section, at least one of the metal (col.6, ll.5-10) parts having a **high or very high** elastic limit and low formability, characterized in that: the metal parts are formed by at least one bending process (Figs.1-8); the metal parts are arranged relative to each other in a junction section (19); the metal parts are assembled by crimping at the hem (19) along the junction section of the parts, the hem mechanically reinforcing the structure.

2. Wessely discloses (col.6, ll.5-10) that at least one of the parts is made of steel. Wessely does not expressly disclose that the steel has an elastic limit of more than 400 MPa. However this limitation is a material property inherent to most steels.

4 and 10. Wessely discloses (fig. 8) that the ratio of the radius of the hem to the sum of the thicknesses of the various parts one wishes to assembly along the junction section is between 2 and 10.

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5 and 11. Wessely discloses (fig.8) that the ratio of the difference between the radius of the hem and the thickness of the outermost metal with the thickness of the innermost metal is more than 2.

6. Wessely discloses (fig.8) that the nature of thickness of the various parts (20, 4) is not identical for all.

7. Wessely discloses (fig.8) that the junction is not rectilinear and has a local curvature, the radius of which is more than at least five times the external radius of the hem.

13. Wessely discloses (fig.8) that it results from the assembly of two parts (2, 4) by means of two hems so as to form a cross section at least one of the two parts having a U-shaped cross section (at bends of 2 and 4). The word "hem" is taken by the examiner to mean "rim or boarder" in accordance with Merriam-Webster's Collegiate Dictionary Tenth Edition. Therefore both element 2 and element 4 comprise "hems" near 19 within the broadest reasonable interpretation of the claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4055133 to Wessely.

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3. Wessely does not expressly disclose that one of the parts is made of an aluminum alloy with an elastic limit of more than 200 MPa. It has generally been recognized that selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). The use of aluminum alloy instead of steel for sheet material is well known. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use an aluminum alloy material to construct the sheet parts of Wessely as such practice is a design consideration within the skill of the art. Furthermore, the limitation of an elastic limit of more than 200 MPa is a material property inherent to many aluminum alloys.

Claims 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4055133 to Wessely in view of USPN 2125692 to Ragsdale.

8. Wessely does not disclose that after the hem crimping, blocking of the hem with respect to the sliding of the assembled parts along the junction section is achieved by bonding. Ragsdale teaches (fig.1 and page 2, left column, ll.10-20) that hems may be bonded by welding. Ragsdale does not expressly state why welding of hems would be beneficial, however it appears that welding increases the joint strength of the hems. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the crimped hems of Wessely to be bonded by welding for the purpose of improving joint strength.

12. Wessely does not expressly disclose what assembly the hems are used in. Ragsdale demonstrates (fig.1) that it is well known in the art to construct a two-web I-shaped girder assembly obtained by assembling four constituent parts (top, bottom, left and right sheets of 10)

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connected by four hems (at the corners) along the junction section of the four parts taken in pairs.

Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use the hems of Wessely to construct a girder, as demonstrated by Ragsdale, as it is extremely well known in the art to do so.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Referring to Sheet metal forming:

USPN 4193247 to Heckelsberg;

USPN 2054703 to Little;

USPN 3151767 to Takehiko Nakata;

USPN 5238146 to Thorne;

USPN 2129624 to Rafter;

USPN 4356888 to Steenberg;

USPN 4554718 to Ollinger; and

USPN 6041564 to Shirey.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor MacArthur whose telephone number is (703) 305-5701.

The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (703) 308-1159. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



VLM
June 28, 2003


John R. Cottingham
Patent Examiner
Lynne H. Browne
Supervisory Patent Examiner
Technology Center 3600